

Appl. No. 10/625,796
Reply to Office Action of May 13, 2005

REMARKS/ARGUMENTS

The change to claim 17 corrects a clerical error in its transcription (please see specification at page 5, second paragraph).

Claims 25 to 40 have been cancelled. This leaves the rejection of claims 17 to 27 under 35 USC 103 over Ushioda et al. for reasons of record.

Entry of this AMENDMENT at least because it greatly reduces issues by deletion of claims, is respectfully requested.

In response to applicants' arguments that there is a great difference in carbon content between the present invention steel and Ushioda steel, therefore, the strength of the present invention steel is different from that of Ushioda, the Examiner has taken the position that the art of controlling strength by changing C content is obvious.

Reconsideration of the rejection is requested in view of the differences in technical concepts between the cited reference and the present invention. It is submitted that the rejection on the grounds of lack of inventive step should be withdrawn in view of the following:

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Technical subjects are different between the cited reference and the present application. Firstly, the products are dissimilar. The cited reference discloses galvanized steel sheets and cold-rolled steel sheets having tensile strength of 30 to 44 kg/mm² and 32 to 47 kg/mm², respectively, however, a method for manufacturing galvanized steel sheets having tensile strength of 440 MPa -class or mores which is a target of the present application, is not disclosed. Concerning this, as the Examiner pointed out, the tensile strength of Steel No. B5 of an inventive example of a cited reference is within the range of the present application, however, the steel contains P in large quantity of 0.120% and hence it is obvious that, as set out at line 11, on page 23, if the steel is hot-dip galvanized, deterioration of plating adhesion is caused.

Moreover, although rapid cooling after hot rolling per se is disclosed, the effect of the rapid cooling is dissimilar. It is set forth in a cited reference that an object of rapid cooling is an improvement of r value (r 45) in a direction of 45° after cold-rolled sheet annealing. (Example 6 of cited reference). On the other hand, the present application is directed to an improvement of ductility by means of uniformly fining a band structure wherein pearlite is in a lamellar state. Despite the

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similar conditions of cooling after hot rolling, the reason why the effects are different is that the steel structures are completely dissimilar between the cited reference and the present application. That is to say, the metal structure of the cited reference is ferrite single-phase whereas, the metal structure of the steel of the invention of the present application is, as shown in Examples in Table 9, F+M, F+B+M and F+P(+C).

In view of the above, the cited reference does not suggest metallurgical effects of the present application and therefore, it is impossible to readily surmise the present invention from the cited reference.

In view of the above, the rejections are avoided. Allowance of the application is therefore respectfully requested.

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